



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,015	10/17/2001	Steve Dispensa	1573	5595
28004	7590	01/11/2007		
SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100			EXAMINER FOX, BRYAN J	
			ART UNIT	PAPER NUMBER
			2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	09/981,015		DISPENSA ET AL.	
	Examiner		Art Unit	
	Charles N. Appiah		2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 05, 2006 has been entered.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-60 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claims 21-40 are directed to a software product for operating a probe device in a broadband wireless system with non-functional descriptive material. The claims recite an abstract idea stored in a computer-readable medium with no asserted practical application. In determining whether a claim is for "a practical application", the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful and concrete".

Claims 1-20 are directed to a method of operating a probe device. The claims recite method steps involving an abstract idea of a computer process that merely lists

functional descriptive material for a process without any concrete and useful result, as evidenced by claim 21. The method steps are made intangible since it is not clear and adequately disclosed what tangible medium or device carry out the recited steps.

Claims 41-60 are rendered non-statutory because the claimed probe device is directed to an abstract idea, which is carried out by the software product of claim 21 without any concrete and useful result.

NOTE: Refer to the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", Official Gazette notice of 22 November 2005 (currently at: <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-9, 13-29, 33-49, 53-57, 58, 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (6,377,562) in view of Perreault et al. (5,608,727).

Regarding claims 1, 21 and 41, Schneider discloses a method of operating a probe device, a software product and a probe device in a broadband wireless system (high data bandwidth portion of WASL communication, see col. 4, lines 62-64), the method comprising: receiving a message (feature of signals received from WASL subscribers by the radio tower, see col. 4, line 65 to col. 5, line 2), processing the

Art Unit: 2617

message to determine channel information describing use of each of a plurality of channels in the broadband wireless system by each of a plurality of users (data recovery from signals received from the bandpass filter by processor 32 in accordance with the particular cellular communication utilized, see col. 5, lines 8-49), and storing the channel information in a memory in the probe device (Quality of service subscription data including schedules being stored in the memory of the quality of service processor 36, see col. 8, lines 11-16). Schneider fails to explicitly disclose channel information describing actual use of each of a plurality of channels in the broadband wireless system is determined.

In an analogous field of endeavor, Perreault discloses a system for frequency spectrum management for dynamic spectrum usage adjustment among applications on a shared medium wherein a spectrum manager allocates channels based at least in part on information for quality and usage metrics for each of the channels allocated for the use of the application (see Fig. 2, step 204, col. 2, lines 52-67, col. 4, lines 18-59). According to Perreault, the RF spectrum is allocated for multiple applications, e.g., data, voice, and video, in a broadband cable network (see col. 3, lines 1-10), which makes Perreault pertinent to the instant application.

It would therefore have been obvious to one of ordinary skill in the art to combine Perreault's spectrum management system with Schneider's wireless local loop communication system in order to optimize allocation of available spectrum of varying quality to multiple users as taught by Perreault.

Regarding claims 2, 3, 22, 23, 42 and 43 Schneider further discloses wherein the channels are upstream and downstream (downstream direction to users and upstream, see col. 3, lines 30-39).

Regarding claims 4, 24 and 44 Schneider further discloses wherein the message is a credit that allows usage of one of the channels (monitoring of signal character of the individual sub-carriers and the bit error rate performance at the subscriber premises and transported to the base station, see col. 5, lines 17-23).

Regarding claims 5, 25 and 45 Schneider further discloses wherein the message indicates a completion of usage one of the channels (see col. 7, lines 56-65).

Regarding claims 6, 26 and 46 Schneider further discloses wherein the probe is connected to a switch in the broadband wireless system (feature of ATM switch being part of WASL, see col. 2, lines 49-66, col. 4, line 59 to col. 5, line 16).

Regarding claims 7, 8, 27, 28, 47 and 48 Schneider further discloses wherein the probe device is connected to an upstream manager and a downstream manager in the broadband wireless system (see channel probe of WASL transmission base station of Fig. 1).

Regarding claims 9, 16, 17, 29, 36, 37, 49, 56 and 57, Schneider further discloses wherein the message comprises determining a state of the channels and the channel information comprises a change in a state of one of the channels (channel quality and/or bit error rate for each channel being fed back dynamically from the user, see col. 3, lines 61-67).

Regarding claims 13, 20, 33, 40, 53 and 60 Schneider further discloses determining a time in the state (feature of token controller determining how long a data source may send its data after 'capturing' the token, see col. 6, lines 36-44).

Regarding claims 14, 15, 18, 19, 34, 35, 38, 39, 54, 55, 58 and 59 Schneider's teaching of each user requiring a particular data throughput rate and quality of service (see col. 6, lines 17-21) and being able to accommodate different subscriber options including adjusting output data bit rate for each buffer separately, (see col. 6, lines 30-35) reads on monitoring a number of bytes transmitted and number of messages transmitted during a state of one of the channels.

5. Claims 10-12, 30-32, and 50-52, are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider and Perreault et al. as applied to claims 9, 29 and 49 above, and further in view of Moura et al. (6,411,606).

Regarding claims 10-12, 30-32 and 50-52, Schneider as modified by Perreault fail to explicitly teach wherein the state is polling dedicated or idle.

Moura discloses a hybrid access system for extending a high-speed network to remote locations wherein state of a channel is determined by polling (see col. 2, lines 44-67), in the dedicated state (see col. 5, lines 15-24, col. 5, lines 34-59), and in an idle state (see col. 2, lines 58-60).

It would therefore have been obvious to one of ordinary skill in the art to combine Moura's hybrid access system with Schneider's WASL communication system as modified by Perreault in order to combine the flexibility of a full duplex network with the

Art Unit: 2617

effectiveness of a broadcast network at a reasonable cost using a credit allocation system as taught by Moura.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Enns et al. (6,658,010) discloses an asymmetric network system that manages bandwidth allocation and configuration of remote devices in a broadband network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Appiah whose telephone number is 571 272-7904. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CA


CHARLES APPIAH
PRIMARY EXAMINER